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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/914,966	09/06/2001	Larry Neil Mackey	U 013595-2	6640

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EXAMINER

GUARRIELLO, JOHN J

ART UNIT PAPER NUMBER

1771

DATE MAILED: 01/21/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/914,966

Applicant(s)

MACKEY ET AL.

Examiner

John J. Guarriello

Art Unit

1771

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 31 July 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 11-30 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 11-30 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 7,10/03 6) ☐ Other: _____

DETAILED ACTION

15. The Examiner acknowledges the amendment of 10/2/ 2003 cancelling original claims 1-10, and adding new claims 11-30 ; with the IDS of 7/24/2003 and the IDS of 10/2/2003.

Claim Rejections - 35 USC § 102

16. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 11-15 are rejected under 35 U.S.C. 102(b) as being anticipated by Buehler et al 5,516,815.

Buehler describes starch fibers or starch modified fibers (corresponding to the claimed starch fibers of the claimed invention), (see abstract; column 1, lines 54-55). Buehler describes the amount of starch, (column 4, lines 15-50), fibers can be used in absorbent articles, absorbent cotton and wound dressing materials, (which

correspond to the claimed fiber or fibrous structure), (column 2, lines 35-46). Buehler describes the amount of plasticizer (column 4, lines 63-67), about 50%, in the starch composition which overlaps the amount of plasticizer in the claimed invention, (column 6, lines 6-13). It is the Examiner's position that Buehler describes the essential limitations of the claimed invention. Claims lack novelty.

17. Claims 11-18, 20-30 are rejected under 35 U.S.C. 102(b) as being anticipated by Hernandez et al. 4,243,480.

Hernandez describes starch fibers (corresponding to the claimed fiber comprising starch) which is made by a number of variations, (column 3, lines 56-64). Hernandez describes the amount of 5-40% of starch fibers which amount overlaps the claimed amount of the claimed invention of fibers made from starch, (column 3, lines 63-64). Hernandez describes plasticizers as well as other additives can be added to the fiber from starch, (column 9, lines 21-30).

Hernandez describes the production of the starch into fibers with cross-linking agents, (column 9, lines 50-58). Hernandez describes

the making of the starch with about any additives up to 50% by weight, (column 9, lines 56-61). It is the Examiner's position that Hernandez describes the essential components of the claimed invention, since Hernandez describes the basis structure and chemistry, the other properties would be inherent. Claims lack novelty.

Claim Rejections - 35 USC § 103

18. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

19. Claims 11, 13-20, 27-30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Buehler et al. 5,516,815 in view of Bastioli et al. 5,286,770.

Buehler describes modified starch fibers (which correspond to the claimed starch fibers) above in paragraph # 18 above. Buehler

differs from the claimed invention because it is silent about the amount of the plasticizer and the amount of the cross-linking agent.

Bastioli describes absorbent articles comprising starch with a synthetic polymer which are an interpenetrated network (corresponding to the claimed fiber starch of the claimed invention) with plasticizer in the amount of 2-40 wt. % which amount overlaps that of the claimed invention, (column 5, lines 1-29). Bastioli describes the amount of the crosslinking agent urea which can also be aldehydes, (column 5, lines 1-4, lines 30-31) of about 2-7% which amount overlaps that of the claimed invention.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to employ the plasticizer and crosslinking agents of Bastioli in the modified starch fibers of Buehler motivated with the expectation that improved moisture absorption would be evidenced as noted in Buehler, (column 2, lines 32-39). Regarding the properties, since the basic chemistry and structure are exemplified in the references it would be routine in this art to optimize the size, basis weight, density, and Tg since this only involves

routine skill in this art, In re Boesch, 617, F.2d 272, 205 USPQ 215 (CCPA 1980).

20. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

21. Any inquiry concerning this communication or earlier communications from the examiner should be directed to John J.

Guarriello whose telephone number is 571-272-1476. The examiner can normally be reached on Monday to Friday from 8 am to 4 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Terrel Morris, can be reached at 571-272-1478. The fax phone number for the organization where this application or proceeding is assigned is 703-305-5408.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 571-272-0994.


J

John J. Guarriello:gj

Patent Examiner

January 7, 2004

January 12, 2004


TERREL MORRIS
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 1700